The discussion in this section is largely based on the following reports: *Phase I Environmental Site Assessment, Northeast of Interstate 101 and Cochrane Road, Morgan Hill, Santa Clara County, California (*Twining Laboratories, Inc. 2004); *Results of Phase II Assessment, Northeast of Interstate 101 and Cochrane Road, Morgan Hill, Santa Clara County, California (*Twining Laboratories, Inc. 2005); *Supplemental Letter Regarding Morgan Hill Site (*Twining Laboratories, Inc. 2005); and the *Asbestos and Lead-Based Paint Reconnaissance (*Bovee Environmental Management, Inc. 2005). The above reports are contained in Appendix G of this EIR.

3.7.1 ENVIRONMENTAL SETTING

The Phase I Environmental Site Assessment (ESA) conducted by Twining Labs consisted of the following: visual inspections of the site and surrounding areas; reviews of historic aerial photographs and other property data sources; reviews of existing inventories maintained by federal, state and local agencies; and interviews with owners of the property. The Phase I ESA was followed by a limited Phase II ESA, which included soil sampling and testing to determine the potential presence of contaminated soils on the site. The findings of the Phase I and Phase II ESA's are summarized below.

PHASE I ENVIRONMENTAL SITE ASSESSMENT

The following is a summary of the information and conclusions contained in the Phase I ESA prepared by Twining Labs in June 2004.

On-Site Conditions

General Site Conditions

The 66.49-acre project site consists of five irregularly-shaped parcels under three separate ownerships. The following discussion of on-site conditions references the parcels by ownership as follows: Millerd-Low (APN 728-37-001); Guglielmo (APNs 728-37-002,-005,-007); and Sullivan (APN 728-37-004).

> **Millerd-Low** property consists of a 12-acre parcel located at the northeast corner of the project site. The property is occupied by a horse boarding facility, two residences, and seven out-buildings including a garage, tack rooms, a pump house, a restroom, and a hay barn. The remainder of this parcel consists of fenced pasture land.
>
> **Guglielmo** property consists of three irregularly-shaped parcels totaling 38 acres in the central and southern portions of the project site. The northern portion of the property is occupied by a small vineyard and the southern part of the property is in

cultivation for row crops. A residence and associated barn and pumphouse are located in the central area of the property.

Sullivan property comprises 16.5 acres located in the western portion of the site. This parcel is being dry farmed for wheat and contains no structures or other site improvements.

Above-Ground Storage Tanks

There are four 400-gallon above-ground storage tanks (ASTs) located adjacent to the residence on the Guglielmo property in the central area of the project site. The contents of the tanks were labeled as AN-20, Briphlo acid, Thioal, and KTS. The tanks are located on pallets on an unpaved surface, and no visible contamination was observed beneath the tanks. In addition, there is one 1,000-gallon AST containing water for fire safety located adjacent to the barn on the Millerd-Low parcel in the northeast corner of the project site.

Underground Storage Tanks

No evidence of underground storage tanks (USTs) was observed on the project site and no current or former USTs were known to exist by the current landowners. However, the possibility exists that buried heating oil tanks may be present at the 1912 residence on the Millerd-Low parcel, or that USTs related to past agricultural activities may also be present.

Transformers/PCBs

There are seven pole-mounted transformers located throughout the project site, which are owned and operated by PG&E. These transformers have the potential to contain Polychlorinated biphenyl (PCB), although there is no evidence of leakage or staining.

Septic Systems

According to the property owners, there are currently four septic tanks on the project site (three on the Millerd-Low parcel and one on the Guglielmo property). However, no surface evidence of these septic systems was found and the owners were unable to identify the locations of the septic systems.

Water Wells

There are four water wells on the project site. These include two domestic water wells located on the Millerd-Low and Guglielmo properties, one operational irrigation well on the Millerd-Low property, and one abandoned irrigation well located on or near the property line between the Millerd-Low and Guglielmo properties.

Agricultural Chemicals

There is evidence that agricultural chemicals have been formulated and stored at the project site and applied to portions of the site. As such, there is a potential for environmentally persistent agricultural chemicals to be present in the soils at the project site.

Animal Waste from Horse Boarding Operation

There is an existing horse boarding operation on the 12-acre Millerd-Low property. The facility has been in operation for the past 25 years and accommodates approximately 30 horses. Animal waste is managed by spreading it on-site, which allows volatilization due to exposure to air and sunlight. No wastewater ponds have been utilized at the facility. In addition, vegetation such as trees, shrubs and herbaceous plants on the project site provide nitrogen uptake, which reduces the potential for nitrogen migration to the groundwater. Given that the depth to groundwater beneath the site is at least 35 feet, it is unlikely that groundwater has been adversely affected by the horse operation. As such, Twining Labs has no environmental concerns with respect to the horse facility.

Imported Fill Soil

According to Twining's telephone interview with Ms. Millerd-Low, fill soil was placed throughout the Millerd-Low parcel. The imported soil was generated by the Santa Clara Valley Water District pipeline which was installed about one mile north of the project site. Twining found no available analytical information on the imported fill soil, although the fill was reportedly derived from agricultural land and rangeland.

Asbestos-Containing Building Materials

Based on a site reconnaissance conducted by Bovee Environmental Management in February 2005, it was determined that buildings on the site which were constructed prior to 1978 were constructed with building materials that contain asbestos, such as flooring materials, plaster, sheetrock/joint compound, insulators, exterior siding materials, and roofing materials.

Lead-Based Paint

The site reconnaissance by Bovee Environmental Management also observed that the painted surfaces of structures on the property were in a deteriorated condition (e.g., chipping, flaking, and peeling paint). This paint was determined to contain lead in detectable amounts.

Other On-Site Conditions

The site reconnaissance conducted by Twining Labs did not observe any other evidence of hazardous substances or wastes, solid waste, sumps or pits, ponds or lagoons, pipes of unknown origin, surface indications of contamination (e.g., stressed vegetation, degraded pavement, substantial staining), or any other potential source of contamination.

Off-Site Conditions

A review of regulatory lists by Twining indicated that there is one hazardous waste generator located within one-half mile of the site. This generator is identified as Madrone Land Corporation, San José Trap and Skeet, located at 645 Cochrane Road, approximately 0.44 miles southwest of the project site. Based on distance and direction relative to the project site, this facility is not considered to pose an environmental threat to the project site.

PHASE II ASSESSMENT

The following is a summary of the findings and conclusions of the limited Phase II assessment conducted by Twining Labs in February 2005.

The Phase II investigation included a total of 20 soil samples taken from 12 locations distributed throughout the project site (at selected locations, samples were taken from the surface and from a depth of one or two feet). Four samples were collected at the horse ranch on the Millerd-Low parcel, four samples (at two locations) were taken at the chemical mixing and storage area on the Guglielmo property, and the remaining samples were collected from the farmed areas of the project site. The soil samples collected from the horse ranch were analyzed for the presence of metals (arsenic, cadmium, chromium, lead, nickel, zinc), and petroleum hydrocarbons. Samples collected at the remaining locations were analyzed for metals (copper, lead, arsenic, zinc), organophosphate pesticides, organochlorine pesticides, chlorinated phenoxy acid herbicides, and petroleum hydrocarbons.

Laboratory testing of the soil samples indicated the presence of the pesticides and metals analyzed, but only in concentrations which were below hazardous levels and/or the applicable Preliminary Remediation Goals (PRGs) established by the US Environmental Protection Agency (EPA). The pesticide 4,4-DDE was detected in the two surface samples collected at the chemical mixing and storage area at concentrations of 0.092 milligrams per kilogram (mg/kg) and 0.07 mg/kg, respectively. These concentrations are below EPA's applicable Total Threshold Limit Concentration (TTLC) and Soluble Threshold Limit Concentration (STLC) values established for this constituent, i.e., 1 mg/kg and 0.1 milligrams per liter (mg/l), respectively. These concentrations are also below EPA's PRG of 1.7 mg/kg. One sample taken from the row crop area of the Guglielmo property indicated a low concentration of the pesticide Diazinon (at 0.97 mg/kg), well below the applicable PRG of 55 mg/kg. Chromium was detected in several samples at non-hazardous concentrations

ranging from 43 mg/kg to 75 mg/kg, well below the applicable TTLC, and appears to be naturally-occurring.

3.7.2 REGULATORY SETTING

GENERAL PLAN

The following *City of Morgan Hill General Plan* goal and policies on hazardous materials are relevant to the proposed project.

Public Health and Safety

Goal 3 Avoidance of exposure to hazardous substances.

Policy 3d Continue to inspect regularly activities that store and/or use hazardous materials, including above-ground and underground storage tanks and related equipment, to ensure compliance with the City's Hazardous Materials Storage Ordinance (HMSO).

Policy 3s Continue to allow Small Quantity Generators such as photo laboratories and dry cleaners to locate in appropriate commercial and industrial zones without requiring additional hazardous materials permits, providing that such uses comply with other Federal, State and local hazardous materials laws and regulations and providing that the site does not accept hazardous waste from off-site for processing.

Policy 3t rovide mitigation to remedy the effects of new or expanding development over areas with environmental contamination of any and all unauthorized discharges.

HAZARDOUS MATERIALS STORAGE ORDINANCE

Under California Health and Safety Code Section 25503.5, any activity involving the handling of hazardous materials requires the establishment and implementation of a Hazardous Materials Business Response Plan. This state law requirement is implemented locally by the City of Morgan Hill's Hazardous Materials Storage Ordinance and administered for the City of Morgan Hill by the Santa Clara County Fire Department. The ordinance requires that any entity which engages in the storage of hazardous materials, as defined in the ordinance, must obtain a Hazardous Materials Storage Permit. The ordinance also requires preparation of a Hazardous Materials Management Plan (HMMP), which is to include: a Hazardous Materials Inventory Statement (HMIS), provisions for emergency response planning, double containment, monitoring, and financial responsibility, among

other things. The City also requires a separate permit for underground storage tank installation.

3.7.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines and previous standards used by the City. For purposes of this EIR, the hazards and hazardous materials impacts associated with the proposed project would be considered to be significant if the following would result from implementation of the proposed project:

- Create a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials;
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- Be located on a site, which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
- Expose people to a significant risk associated with the storage, use, production or disposal of hazardous material on the site or from existing hazardous materials contamination on the site;
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area;
- For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area;
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; and/or

- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

METHODOLOGY

The following impact evaluation is largely based on the Phase I and Phase II ESAs prepared by Twining Laboratories, which are contained in Appendix G of this EIR. The Phase I assessment consisted of the following: visual inspections of the site and surrounding areas; reviews of historic aerial photographs and other property data sources; reviews of existing federal, state and local regulatory inventories of hazardous waste generators and sites; and interviews with owners of the properties. The limited Phase II assessment included soil sampling and testing to determine the potential presence of contaminated soils on the site, as defined by the federal and state regulatory agencies. The mitigation measures identified herein are primarily based on standard federal, state, and local requirements.

PROJECT IMPACTS AND MITIGATION MEASURES

Soils Contaminated with Agricultural Chemicals

Impact 3.7-1 Residual pesticides and metals are present in the soils on the project site; however, the concentrations are low and are not considered hazardous. This is considered a **less than significant impact.**

Laboratory testing of the soil samples indicated the presence of the pesticides such as DDE and Diazinon, and metals such as chromium, but in concentrations which were below hazardous levels. Therefore this impact is considered **less than significant**. No mitigation measures are necessary.

Asbestos-Containing Building Materials and Lead-Based Paint

Impact 3.7-2 The project site includes three residences and associated outbuildings that are proposed for demolition with implementation of the proposed project. According to an asbestos and lead-based paint reconnaissance performed by Bovee Environmental Management, Inc., these existing structures contain asbestos and lead-based paint in hazardous concentrations. This is considered a **significant impact.**

Based on a site reconnaissance conducted by Bovee Environmental Management, it was determined that buildings at the project site, which were constructed prior to 1978, include materials that contain asbestos, such as flooring materials, plaster, sheetrock/joint compound, insulators, exterior siding materials, and roofing materials. This is considered a potentially significant health and safety impact. Implementation of **MM 3.3-1** in Section 3.3, Air Quality, would require the project applicant to conduct a full site assessment and

removal of asbestos-containing material prior to demolition of these buildings. This mitigation measure would reduce the health and safety impacts associated with the removal of asbestos containing material to a less than significant level.

Bovee Environmental Management also noted that the painted surfaces of the structures on the property were in deteriorated condition, including chipping, flaking, and peeling paint. This paint was determined to contain lead in detectable amounts. This is considered a significant impact. Implementation of the following mitigation measure would reduce the effects of lead-based paint to a **less than significant level**.

Mitigation Measure

MM 3.7-1 Prior to demolition of any on-site structures, a full site assessment for lead-based paint shall be conducted by a California Department of Health Services approved Lead Inspector/Assessor. Prior to general demolition and site clearing activity, all identified deteriorating lead-based paint shall be removed by a licensed lead paint abatement contractor and properly disposed of in accordance with Title 22 of the California Code of Regulations.

Septic Systems

Impact 3.7-3 There are four septic tanks reportedly present on the project site, although their locations were not identified during the Phase I site reconnaissance. This is considered a **significant impact.**

Septic tanks could be considered a source of residual contamination at the project site. If these septic systems are not removed, this could be considered a potential safety and health impact. Implementation of the following mitigation measure would reduce this impact to a **less than significant level**.

Mitigation Measure

MM 3.7-2 Septic systems at the project site shall be properly removed in accordance with state regulations and the requirements of the Santa Clara County Environmental Health Department.

Water Wells

Impact 3.7-4 Unless the four existing wells on the site are properly destroyed, they could act as conduits for groundwater contamination. This is considered a **significant impact.**

Implementation of the following would reduce this impact to a **less than significant** level.

Mitigation Measure

MM 3.7-3 Prior to commencement of site clearing and general demolition activities, the existing wells on the site shall be destroyed in accordance with state regulations and the requirements of the Santa Clara County Environmental Health Department and the Santa Clara Valley Water District (Ordinance 90-1).

PCBs in Pole-Mounted Transformers

Impact 3.7-5 The potential presence of PCBs in the existing transformers on the project site poses a potential health hazard; however, the transformers would be properly removed from the site by PG&E prior to site development. This is considered a **less than significant impact.**

The seven pole-mounted transformers located throughout the site would be removed by PG&E prior to site development in conjunction with undergrounding of project utilities. This would remove any potential hazard from PCBs, which may be contained in the transformers. This is considered a **less than significant impact**. No mitigation measures are necessary.

Planned Fuel Station

Impact 3.7-6 The proposed project includes a possible fuel station, which would involve potentially hazardous storage and handling of gasoline. This is considered a **significant impact.**

As shown on the project site plan in Figure 2-8, the proposed project may include a 12-position fuel station as an alternative to a retail pad near the southern portion of the project site. The fuel station would likely include several large underground fuel storage tanks, which would be potentially subject to leaks and spills, which could result in soil and groundwater contamination.

Under California Health and Safety Code Section 25503.5, any activity involving the handling of hazardous materials requires the establishment and implementation of a Hazardous Materials Business Response Plan. This state law requirement is implemented locally by the City of Morgan Hill's Hazardous Materials Storage Ordinance, which is administered for the City by the Santa Clara County Fire Department. The ordinance requires that the gasoline operator obtain a Hazardous Materials Storage Permit, which includes preparation of a Hazardous Materials Management Plan (HMMP), which is to include a Hazardous Materials Inventory Statement (HMIS), provisions for emergency response planning, double containment, monitoring, and financial responsibility. The City also requires a separate permit for underground storage tank installation, and the County Fire Department will conduct a series of inspections at various stages of tank installation and construction to ensure compliance with all standards and requirements.

The Bay Area Air Quality Management District (BAAQMD) has stringent requirements for the control of gasoline vapor emissions from gasoline dispensing facilities. This includes a requirement that the operator obtain an Authority to Construct permit from the BAAQMD. This permit requirement is intended to ensure that the required Vapor Recovery Systems are installed and are operating effectively. Once installed, the BAAQMD will issue a temporary use permit while it conducts tests to certify that the systems are 95 percent efficient as required by the California Air Resources Board. The BAAQMD will then issue a Permit to Operate, and will continue to conduct periodic tests to make sure the systems are continuing to meet the mandated performance standards.

Gasoline vapors are released during the filling of both underground storage tanks and the transfer of fuel from those tanks to individual vehicles. These vapors contain Toxic Air Contaminants (TACs) such as benzene. For a full discussion of TACs see Section 3.3, Air Quality. The release of these hazardous materials at the project site is considered a significant impact. Implementation of the following mitigation measure would reduce this impact to a **less than significant level**.

Mitigation Measure

MM 3.7-4 The gasoline station operator shall obtain a Hazardous Materials Storage Permit from the Santa Clara County Fire Department for the proper handling and storage of gasoline and any other hazardous materials. In addition, air quality permits shall be required for the fuel station from the BAAQMD.

Emergency Response Plan/Emergency Evacuation Plan

The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plant and **no impact** is anticipated.

Wildland Fire

Wildland fire impact may be considered significant if the project would expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. However, the project site consists of rural residential uses and agricultural land and is not located in an area prone to wildland fire or excessive fuel loading. Therefore the proposed project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires and **no impact** is anticipated.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Risk of Exposure to Hazardous Waste or Materials

Impact 3.7-7 New development resulting from cumulative development in the City of Morgan Hill could expose people, property, and the environment to hazardous materials. This cumulative impact is considered **less than significant**.

Implementation of the proposed project would result in the potential risks associated with exposure to hazardous substances such as pesticides, asbestos containing materials, and lead associated with previous land uses. However, hazardous materials impacts would be site-specific and are generally not affected by cumulative development in the region. No significant hazardous waste generators were identified within a half-mile of the project site that pose a significant environmental threat to the project site. In addition, implementation of the proposed project would not contribute to an increase in the potential for soil or groundwater contamination. Therefore, the proposed project itself is not anticipated to contribute to a health or hazard-related impact that would cumulatively affect the environment and the cumulative impact is considered **less than significant**. No mitigation measures are necessary.

REFERENCES/DOCUMENTATION

Bovee Environmental Management, Inc. *Asbestos and Lead-Based Paint Reconnaissance, 66 Acre Property: NEC Hwy 101 & Cochrane Road, Morgan Hill, California*. February 2005.

Morgan Hill, City of. *Morgan Hill General Plan*. July 25, 2001 (Updated July 2004).

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Morgan Hill, City of. *Morgan Hill Municipal Code, Title 8 – Health and Safety, Chapter 8.40 – Hazardous Materials*. As updated through December 2004.

Twining Laboratories, Inc. *Phase I Environmental Site Assessment, Northeast of Interstate 101 and Cochrane Road, Morgan Hill, Santa Clara County, California*. June 2004.

Twining Laboratories, Inc. *Results of Phase II Assessment at Site Located Northeast of the Intersection of Interstate 101 and Cochrane Road, Morgan Hill, California*. February 2005.

Twining Laboratories, Inc. *Supplemental Letter Regarding Morgan Hill Site*. February 2005.

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